

## SIMOTICS Large Drives Motors - Fault Analysis (DR-LDM-FA)

### Objectives

The failure of a large drive is usually associated with lengthy downtimes and high costs. Timely detection of a critical condition and the correct action when a fault occurs increase the availability of the entire plant. In this course you learn about the motors as a part of a complex drive system as well as the impact of environmental and operational conditions. You will be able to analyze damage scenarios, determine possible causes of damage and suggest appropriate corrective measures. You will also be able to make recommendations for preventive maintenance.

### Target Group

Regional field service technicians and employees in service control centers, service sales specialists, consultant engineers and promoters for LD motors.

The course is only available for employees of the divisions DF and PD. The list of participants will be checked by DF CS SD TCC before final invitations are sent out. Contact: Hans-Artur Steinborn.

### Content

Typical customer complaints and equipment malfunctions

Tips on cause analysis and potential remedial measures

Cause for complaint - bearings:

- Types of bearings, characteristics
- Calculated and achieved bearing service life
- Lubrication, typical patterns of damage

Cause for complaint - windings:

- Insulation system, diagnostic techniques
- Temperature sensors, typical patterns of damage

Cause for complaint - vibrations:

- Vibrations and wideband measurements
- FFT-analysis and HF-diagnostics

Characteristics of AC-motors relevant to service:

- Design, function, operation, ramp-up, temperature rise, cooling
- Terminal boxes, installation, maintenance

Further topics:

- Prevention of bearing currents
- Warranty - legal aspects
- Processing special inspections
- Important features of motors SIMOTICS FD and HT
- Characteristics of DC-motors relevant to service

Workshop with example cases of service jobs

### Prerequisites

Good knowledge of commissioning, condition monitoring and diagnostics of large motors according to course DR-LDM-DG  
Only for DF and PD employees

### Note

none

### Type

Face-to-face training

### Duration

2.5 days

### Language

en